

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problems Mailbox.**

-
F.O

卷之三

Trigunam

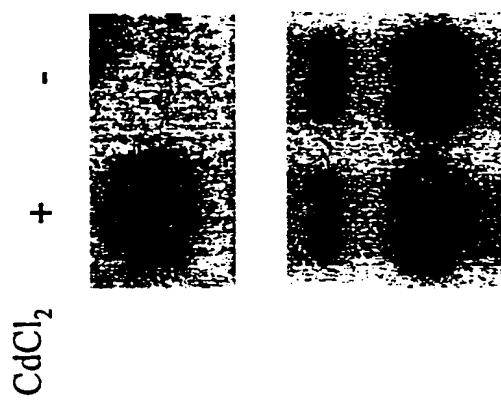
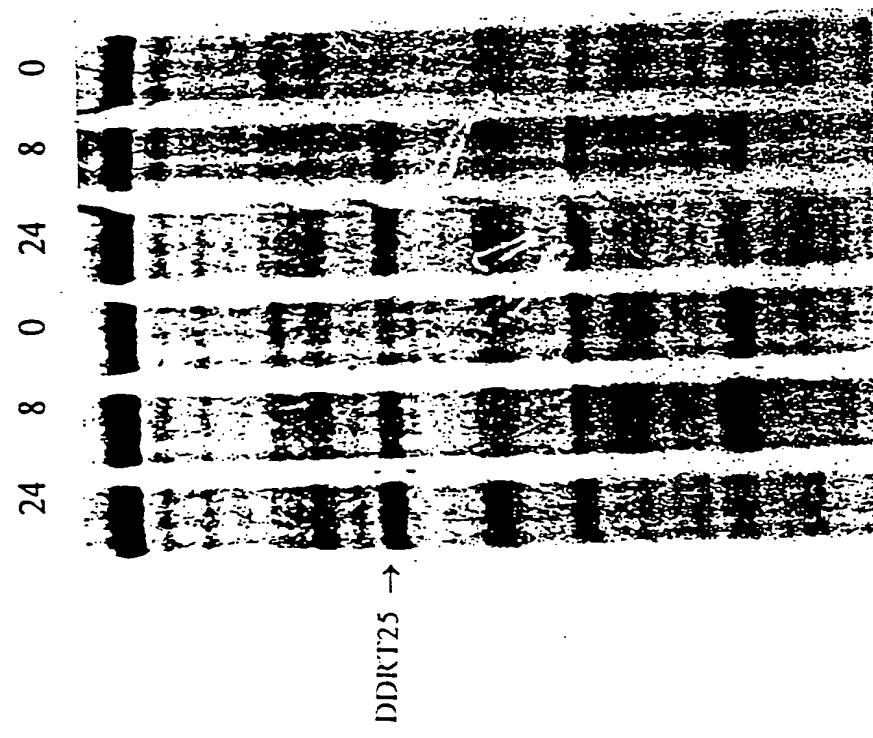
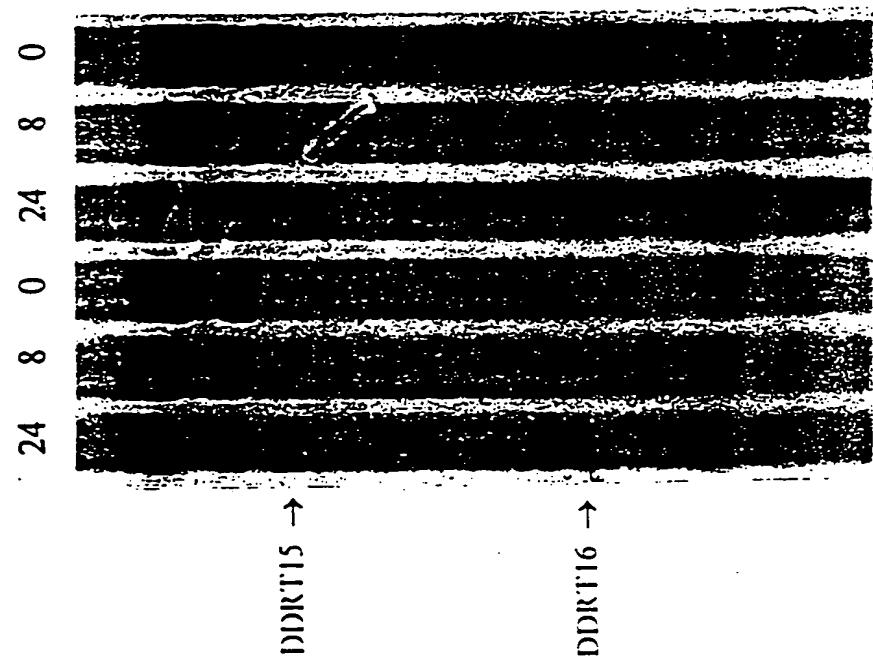


Fig 12

A



B



F.12

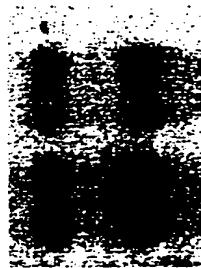
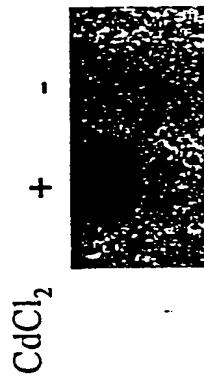
F₆3

660777-0542E460

Figure 3

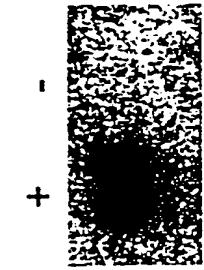
A

VL19



DDRT16

B



F.4

1 2 3 4 5 6 7 8

A	●	●	●	●			
B	●		●				
C	●		●				
D		●	●	●	●	●	
E	●	●		●	●	●	
F			●				●

1 2 3 4 5 6 7 8

A	●	●	●	●	●	●	●
B	●	●	●	●	●	●	●
C	●	●	●	●	●	●	●
D	●	●	●	●	●	●	●
E	●	●	●	●	●	●	●
F		●	●	●			●

1 2 3 4 5 6 7 8

A	●	●	●	●	●	●	●
B	●	●	●	●	●	●	●
C	●	●	●	●	●	●	●
D	●	●	●	●	●	●	●
E	●	●	●	●	●	●	●
F		●	●	●	●	●	●

Figure 4

Figure 5

LOCUS AF072438 284 bp mRNA EST 06-JUL-1998
DEFINITION AF072438 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT21, mRNA sequence.
ACCESSION AF072438
NID g3288944
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 284)
AUTHORS Freedman,J.H. and Liao,H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT
Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.
FEATURES Location/Qualifiers
source 1..284
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT21"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"
BASE COUNT 88 a 61 c 54 g 81 t
ORIGIN

1 tggtaactcca cacggacaaa tacatttagt ttacaagcc gccacgcgac acgcaacggc
61 cgttaaatcta cccaaaggatc aacaacaaca tgtcaagcac agacccatat ctatgttg
121 cggaggatg gctctactg tagtaatcga caattggact ctatccacc ggatcactta
181 acctattttg atattaat gcctgattgg ggatcacagg gtttgcccgaa aatgttaatt
241 atgaaactgaa ttcgaaatgt atttataat tagttttat tggg

//

LOCUS AF072437 214 bp mRNA EST 06-JUL-1998
DEFINITION AF072437 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone VL8, mRNA sequence.
ACCESSION AF072437
NID g3288943
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 214)
AUTHORS Freedman,J.H. and Liao,H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by

differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..214
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL8"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 68 a 37 c 66 g 43 t

ORIGIN

1 gcaagtgcgg agacaaatgt gaatgcagtg gagacaagtg ttgtgagaag tactgctgtg
 61 aggaggccag tgagaaaaaa tgctgtccag ctggatgtaa gggagactgc aagtgtgcaa
 121 actgtcaitg tgcagagcag aagcagtgcg agacaagacc catcaacacc agggaactgc
 181 tgcggctcat taaaatgtt cagagtgtaa tcta

//

LOCUS AF072436 217 bp mRNA EST 06-JUL-1998

DEFINITION AF072436 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone VL7, mRNA sequence.

ACCESSION AF072436

NID g3288942

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 217)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..217
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL7"
 /clone_lib="mRNA from cadmium-responsive gene"

/tissue_type="whole animal"
 /dev_stage="mixed population"
 BASE COUNT 69 a 37 c 66 g 45 t
 ORIGIN
 1 tttagcaagtgcggagacaaa ttgtgaatgcgtggagacaa gtgttgtgag aagtactgct
 61 gtgaggaggc cagtggaaaa aaatgtgtc cagctggatgtggac tgcaagtgtg
 121 caaactgtca ttgtgcagag cagaaggcgt gcgagacaag acccatcaac accagggAAC
 181 tgctgcggct cattaaaatgtttcagagtt gaatcta
 //
 LOCUS AF072435 217 bp mRNA EST 06-JUL-1998

DEFINITION AF072435 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone VL15, mRNA sequence.

ACCESSION AF072435

NID g3288941

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 217)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
 Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..217
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL15"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 69 a 37 c 66 g 45 t

ORIGIN

1 tttagcaagtgcggagacaaa ttgtgaatgcgtggagacaa gtgttgtgag aagtactgct
 61 gtgaggaggc cagtggaaaa aaatgtgtc cagctggatgtggac tgcaagtgtg
 121 caaactgtca ttgtgcagag cagaaggcgt gcgagacaag acccatcaac accagggAAC
 181 tgctgcggct cattaaaatgtttcagagtt gaatcta

//

LOCUS AF072434 216 bp mRNA EST 06-JUL-1998
 DEFINITION AF072434 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone VL12, mRNA sequence.

ACCESSION AF072434

NID g3288940

660777-0241244650

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 216)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..216
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="VL12"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 69 a 37 c 66 g 44 t

ORIGIN

1 tagcaagtgc ggagacaat gtgaatgcag tggagacaag tttgtgaga agtactgctg
61 tgaggaggcc agtgagaaaa aatgtgtcc agctggatgt aaggggagact gcaagtgtgc
121 aaactgtcat tgtcagagc agaaggcagtgc cgagacaaga cccatcaaca ccagggaact
181 gctgcggctc attaaaatgtt ttcagagttt aatctta

//

LOCUS AF071399 240 bp mRNA EST 01-JUL-1998

DEFINITION AF071399 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT9A, mRNA sequence.

ACCESSION AF071399

NID g3265144

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 240)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University

Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..240
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT9A"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 81 a 28 c 41 g 90 t

ORIGIN

1 tttttttttt ttggagactat gaatatttaa ttagcaagc gaattttgtt ttatttagata
 61 ggaaggcttag aagagtaaaa attttaaaaa atgtgaggaa ctggttttgt attcagaagc
 121 atataaacgt tgtcttaatt tatatatgac gttctctatg aatatagcca aatagatcga
 181 tatttttaat caaaaaatca aacatttttgc tatacgaac ctgccttca cgagggtta

//

LOCUS AF071398 217 bp mRNA EST 01-JUL-1998

DEFINITION AF071398 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT7, mRNA sequence.

ACCESSION AF071398

NID g3265143

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 217)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..217
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT7"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 64 a 38 c 42 g 73 t

ORIGIN

1 tttttttttt ttggggagg aaatcacggc ggccggatcga acagtcttct ctcaattggc
 61 aactgtctat atcattccgc aatcacatt cgatgttct cgaaaaggca ttccaaagt

160077-05425-160

AUTHORS Freedman,J.H. and Liao,H.-C.
 TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
 Identification and cloning of new cadmium-responsive genes by
 differential display
 JOURNAL Unpublished (1998)

COMMENT
 Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers
 source 1..254
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT5"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 79 a 43 c 50 g 82 t

ORIGIN
 1 tttttttttt ttttgccca tcggaaaata gcaaggctct ccacaggtac agtaatttag
 61 cattggat atgccttc acagcattat ccagtgtata cttatcctt tcgttaagag
 121 ttgcgaaaaa atgcccataa aaagtgttga atgactttg ttcatctcgaa agcatacata
 181 cgatcgaaac ggagaaatcg atagatcgaa tcaggataag tggggataact gtattgtcgg
 241 atgaaaacat agac

//

LOCUS AF071394 165 bp mRNA EST 01-JUL-1998
 DEFINITION AF071394 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT47, mRNA sequence.

ACCESSION AF071394

NID g3265139

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 165)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
 Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT
 Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers
 source 1..165
 /organism="Caenorhabditis elegans"

/strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT47"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 38 a 37 c 20 g 70 t

ORIGIN

1 tttttttt tttccaacc cttcacata ataggcgaa aaccgattt tgctgtact
 61 tgggtgttg ttatccctt gacccatcca tattccctt tcccaatct ctaaagatat
 121 acctgaaaac gagtttttg aatacttgat acatttgct tcatac

//

LOCUS AF071393 154 bp mRNA EST 01-JUL-1998

DEFINITION AF071393 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT41, mRNA sequence.

ACCESSION AF071393

NID g3265138

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 154)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jof@duke.edu.

FEATURES Location/Qualifiers

source 1..154
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT41"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 49 a 27 c 40 g 38 t

ORIGIN

1 tggattgtgc ggggtgtact gccaaatctg gtcgtatag aaaacatcg gcgatcatgc
 61 ctttacgtgg taagatctg aacgtcgaaa agcaatggaa cataagatct acgaaaatga
 121 ggagatcaa aacatgtta cagcttggt ccta

//

LOCUS AF071392 264 bp mRNA EST 01-JUL-1998

DEFINITION AF071392 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT40, mRNA sequence.

ACCESSION AF071392

NID g3265137

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 264)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..264
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT40"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 90 a 47 c 59 g 68 t

ORIGIN

1 tggattgtgc ggagtataag caaaaatttc tggaaaagtc gggtgatatg aagtttata
61 agatcttcaa tcaaagctc ggtttctgtgtttaaaga ttccgcagga aatgtctcc
121 gagagtccgt gtcctcaaataaattctac gaggcgatca aagaatacga gaaaatggag
181 acaccagatc agcgattaaac aaaagcacga gaaatttac gatcatcata tacggttgaa
241 ttccgtcgcg caatcgac actc

//

LOCUS AF071391 187 bp mRNA EST 01-JUL-1998

DEFINITION AF071391 mRNA from cadmium-responsive gene *Caenorhabditis elegans*

cDNA clone DDRT4, mRNA sequence.

ACCESSION AF071391

NID g3265136

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 187)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..187
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT4"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 57 a 22 c 41 g 67 t

ORIGIN

1 aaattttat taaaataaaa taaaatgtt ttgttgata ttatagcggtt aaagctgaaa
 61 tgacaatgt tagaaaacca gcagagaata gagatgtatg tcccttcgtt gttgtttcca
 121 gtgaacacctt gttgcgggtgg agcccgatt tagcgagtgg tagttttga tgigattgg
 181 tccaaatc

//

LOCUS AF071389 267 bp mRNA EST 01-JUL-1998

DEFINITION AF071389 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT37, mRNA sequence.

ACCESSION AF071389

NID g3265134

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 267)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..267
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT37"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 66 a 75 c 54 g 72 t

ORIGIN

1 tggtaactcca cctacaagtt ctacaagtt tacgagggtt tcctgatcga tccattccac
61 aaggctatcc gtcgttaacc agacacccaa tggatcacca agcctagttc acaagcaccg
121 tgagcaaaga ggactcacct ctgctggacg caagttcggt gactcgaaa gggattgtt
181 ttctctgcta cccgcggagg atccaaacac caaagtttt ccacccgcca accgataat
241 ctgttattt tattttgtt tgggttt

//

LOCUS AF071388 292 bp mRNA EST 01-JUL-1998

DEFINITION AF071388 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT36, mRNA sequence.

ACCESSION AF071388

NID g3265133

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 292)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..292
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT36"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 73 a 57 c 51 g 111 t

ORIGIN

1 tttttttttt tttcccaac ccctcacat aaaggcgaaa aaccgattgt tgctgttact
61 tgggtgttc gtttattccc tgaggtatcc atattccgct tctcccaatc tctaaagata
121 tacctgaaaaa cgagttgtcg tgcgaaatact tgatacatgt tgccttcatc ctgggtatg
181 ttgttcgca aattctcat actagttatg ataggattt aatgagctgg cacgagtcaa
241 ctgttactc gaattcaat atttcgtga tcctgcattt agtgatgaat aa

//

LOCUS AF071387 314 bp mRNA EST 01-JUL-1998

DEFINITION AF071387 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT35, mRNA sequence.

ACCESSION AF071387

NID g3265132

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.

REFERENCE 1 (bases 1 to 314)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..314
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT35"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 86 a 65 c 56 g 107 t

ORIGIN

1 tctgagctag gaggccagg aggaacaac ggaggagtg ctggaaatgg tggattcgac
61 gattttgatg atttgcctcg ccgttcgaa gaactgaaaa agattaagta atcatcaccc
121 gacgttccat tcccttattaa ctattttt ctcttccacc caatttttt ttacgtgtc
181 ttttttgta tcataaatga gacccccaaa aactagctgt ttcttagtgc atacgttaaa
241 accccttag tcattgatta tcattgtata cctcattatc cgaaaaacctt ttcgacattc
301 atcaacttagg tttt

//

LOCUS AF071386 189 bp mRNA EST 01-JUL-1998

DEFINITION AF071386 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT34, mRNA sequence.

ACCESSION AF071386

NID g3265131

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.

REFERENCE 1 (bases 1 to 189)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment

Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..189
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT34"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 61 a 26 c 48 g 54 t

ORIGIN

1 tctgagctag ggaccgaaat tcacaatataat ccaattgtta ctggatgggtg gggatgtgga
 61 cgatttaatg gggacaagcc actgaagtgt atgttatttc attcgtaaa tatgaagatg
 121 gaggagatg aatggggatt ttgcctctt tgcaaaatgg ctcctatg tacctgaaaa
 181 aaaaaaaaaa

//

LOCUS AF071385 171 bp mRNA EST 01-JUL-1998

DEFINITION AF071385 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT33D, mRNA sequence.

ACCESSION AF071385

NID g3265130

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 171)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..171
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT33D"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 57 a 44 c 37 g 33 t

ORIGIN

1 tctgagctag gaaaggacgg agaagatgga gagaacggag ctgctggagc cgctggacca

61 aaggatctt ggcggactg cccaccacca cgcactcccc agatattaa ttcaacttc
 121 tctaattttt gtgaatctca ttctaataaa aagccgcccc aaaaaaaaaa a

//

LOCUS AF071383 289 bp mRNA EST 01-JUL-1998
 DEFINITION AF071383 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT30, mRNA sequence.

ACCESSION AF071383

NID g3265128

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 289)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jnf@duke.edu.

FEATURES Location/Qualifiers

source 1..289
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT30"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 68 a 64 c 63 g 94 t

ORIGIN

1 tttttttttt ttgagcgag cgtttattt ttgagtcgag ctgggttga gtcgtcagct
 61 gaacatgaag attgacaaag aagacgtatca gcacaaacag atgcgcagag tcgcattctt
 121 tgcgggttgcgt gtctcaactg cagccgtcat ttcaagacatc gtgactctcc caatgtatca
 181 ctcttactct tcaatcttc caatccatt tgatcattgg aaaccgagtt ctgtaaaact
 241 gtgctcgtga tatgtggtgt cgaagttctc cacaaggtcag gtgtaccct

//

LOCUS AF071382 162 bp mRNA EST 01-JUL-1998

DEFINITION AF071382 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT3, mRNA sequence.

ACCESSION AF071382

NID g3265127

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 162)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..162
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT3"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 64 a 31 c 18 g 49 t

ORIGIN

1 ctccaccgca acaagtgttc acgtggaaac aacaacgaaa ggaacatcat ctctatctct
 61 gctggtttc taatcatgtt cattcagct ttaacgctat aatcaacaaa aacagtttat
 121 ttatatttaa taaaattta ttcttgcaaa aaaaaaaaaaa aa

//

LOCUS AF071381 140 bp mRNA EST 01-JUL-1998

DEFINITION AF071381 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT29, mRNA sequence.

ACCESSION AF071381

NID g3265126

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.ORGANISM *Caenorhabditis elegans*Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 140)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..140
 /organism="Caenorhabditis elegans"
 /strain="N2"

/db_xref="taxon:6239"
 /clone="DDRT29"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 52 a 25 c 29 g 34 t

ORIGIN

1 tagggcctgg ttgtgacaat gtcactaaa atggggcatg aatatcacca gcagagttca
 61 cttacccaaa gtgtacttat taagactcaa ctgtgaagta tatgagacat ttcatgtcc
 121 tgcccaaaaa aaaaaaaaaa

//

LOCUS AF071380 308 bp mRNA EST 01-JUL-1998

DEFINITION AF071380 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT28, mRNA sequence.

ACCESSION AF071380

NID g3265125

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 308)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..308
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT28"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 88 a 70 c 73 g 77 t

ORIGIN

1 tagtttaggca caggatgtac gaggaaattc tactatttc gggcttcacc acgaaatcac
 61 aataacccgg attttttagt ggtccccca cgttgaccta ctggcgctc aggcaactccg
 121 cccgcacatt cggccgacacg cctacaatcc acgtgtcaat cgicagattt gggatcaat
 181 aatggtgatg aaagggtggaa atacgttatg ggatcatgtt caaaggcatc aagctgaaca
 241 attcgaagag ttgaatcggc gtgcacactt ttgatccaag accgtaaagaa atttgaagc
 301 tattggtg

//

LOCUS AF071379 238 bp mRNA EST 01-JUL-1998

DEFINITION AF071379 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT26, mRNA sequence.

ACCESSION AF071379

NID g3265124

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 238)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..238

/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT26"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 74 a 43 c 44 g 77 t

ORIGIN

1 tttttttttt tttggggag gaaatcacgg cttcgatgc aacagtcttc tctcaattgg
61 caactgtcta ttatccatc cgcaatcaca ttccggatgt tctcgaaaag gacttccaa
121 agttattgga gtacttgaa agagttcgtc atgaagttt cccaaaggac ttactatgt
181 gaattaaattt gtcaaactag tagtcagatc aataaaattt tccgcgcgaa aaaaaaaaa

//

LOCUS AF071378 324 bp mRNA EST 01-JUL-1998

DEFINITION AF071378 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT25A, mRNA sequence.

ACCESSION AF071378

NID g3265123

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 324)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

DRAFT - DRAFT - DRAFT - DRAFT - DRAFT -

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..324
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT25A"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 102 a 70 c 73 g 79 t

ORIGIN

1 tagtttagcca caggatgtac gaggaaattc tactatttc gggctcacc acgaaatcac
 61 aataaccccg attttttagt ggtccccca cgttgcacta ctggcgctt caggcactcc
 121 gccgcgacat tcgcccacac gcctacaatc cacgtgtcaa tcgtcagatt tgccgatcaa
 181 taatggtgat gaaagggtgga aatacgtata tggatcatgt tcaaaaggcat caagctgaac
 241 aattcgaaga gtgaatcgg cgtcgacaac ttttgatcc aagaccgtaa gaaatttgaa
 301 agctatttgt gaaaaaaaaaaa aaaa

//

LOCUS AF071377 272 bp mRNA EST 01-JUL-1998

DEFINITION AF071377 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT24, mRNA sequence.

ACCESSION AF071377

NID g3265122

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 272)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..272
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT24"
 /clone_lib="mRNA from cadmium-responsive gene"

/tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 91 a 74 c 51 g 56 t

ORIGIN

1 tggtaactcca cgccagaaaga agaaggcat ccacaacacc gctactaccg atgacaagaa
 61 gcttcaaagc aatttgaaga aactctctgt caccaacatt ccaggaatcg aggaggctaa
 121 catgattaag acgttgcacat cgttatccac ttcaacaacc caaaagtcta aacctctgtt
 181 cccagccaaat accttctctg tcacaggatc agccgataac aagtcagatc actgaaatgt
 241 ctcccaggaa atgctgaact ggtcagatc ct

//

LOCUS AF071395 218 bp rRNA INV 30-JUN-1998
 DEFINITION *Caenorhabditis elegans* strain N2 clone DDRT48, rRNA sequence.

ACCESSION AF071395

NID g3265140

KEYWORDS

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 218)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 218)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Direct Submission

JOURNAL Submitted (09-JUN-1998) Nicholas School of the Environment, Duke
 University, Box 90328, Durham, NC 27708-0328, USA

FEATURES Location/Qualifiers

source 1..218

/organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /tissue_type="whole animal"
 /dev_stage="mixed population"
 /note="from cadmium-responsive gene"
 /clone="DDRT48"

misc_RNA 1..218

/note="similar to *Caenorhabditis elegans* rDNA tandem
 repeats"

BASE COUNT 58 a 58 c 38 g 64 t

ORIGIN

1 tttttttttt ttgcacaag cggggactaa aagcaagctt ttcattccacc gatgatacaa
 61 ggcgtttta gtacccagg atcgactgac ccacatccaa ctactgtcc acgttggacc
 121 cttctccact tcagtctca aggatcgaac ttgaatattt gctactacca tacgatctgc
 181 actgacggaa agtccagccg agcttacccat atagttaa

//

LOCUS AF071390 238 bp rRNA INV 30-JUN-1998

DEFINITION *Caenorhabditis elegans* strain N2 clone DDRT38, rRNA sequence.

ACCESSION AF071390

NID g3265135

KEYWORDS

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida; Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.

REFERENCE 1 (bases 1 to 238)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by differential display

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 238)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Direct Submission

JOURNAL Submitted (09-JUN-1998) Nicholas School of the Environment, Duke University, Box 90328, Durham, NC 27708-0328, USA

FEATURES Location/Qualifiers

source 1..238

/organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /tissue_type="whole animal"
 /dev_stage="mixed population"
 /note="from cadmium-responsive gene"
 /clone="DDRT38"

misc_RNA 1..238

/note="similar to *Caenorhabditis elegans* rDNA tandem repeats"

BASE COUNT 58 a 50 c 58 g 72 t

ORIGIN

1 tttttttt tttgccggg cggtgtgtac aaccggcagg gacgtaatca acgtgagctg
 61 atgactcgcg cttaacttaggc attcctcggtt taagggcaat aattacaata ccctatcccg
 121 gacatggaag aatttcaacg gtttaccgat accttcaac acggaaaaac taccgggttg
 181 gacaccatta ggactgacag attgaaagtctttgtcgatt tggtggttgg ttgtcat

//

LOCUS AF071384 253 bp rRNA INV 30-JUN-1998

DEFINITION *Caenorhabditis elegans* strain N2 clone DDRT32, rRNA sequence.

ACCESSION AF071384

NID g3265129

KEYWORDS

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida; Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.

REFERENCE 1 (bases 1 to 253)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by differential display

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 253)

AUTHORS Freedman,J.H. and Liao,H.-C.

660777-00042460

TITLE Direct Submission
JOURNAL Submitted (09-JUN-1998) Nicholas School of the Environment, Duke
University, Box 90328, Durham, NC 27708-0328, USA
FEATURES Location/Qualifiers
source 1..253
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/tissue_type="whole animal"
/dev_stage="mixed population"
/note="from cadmium-responsive gene"
/clone="DDRT32"
misc_RNA 1..253
/note="similar to Caenorhabditis elegans rDNA tandem
repeats"

BASE COUNT 45 a 60 c 69 g 79 t

ORIGIN

1 tagggctgt tggttgatgc ttgtccggcg cagttctgtc tgcttgatac ttgggttga
61 tggcggacta gtgattgtgc ttcttgccga ccgtttctgg tgggtgttgc gacctcggtt
121 ctgttatcc gatcgctcat ctatcaaccg tactgttaacc ggtacgactc agggaatccg
181 actgtctaat taaaacagag gtgacagatg gtccttgccg acgttaactg tcactgattt
241 ctccccagtg cac

//

LOCUS AF071376 277 bp rRNA INV 30-JUN-1998
DEFINITION Caenorhabditis elegans strain N2 clone DDRT23, rRNA sequence.

ACCESSION AF071376

NID g3265121

KEYWORDS

SOURCE Caenorhabditis elegans.

ORGANISM Caenorhabditis elegans

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.

REFERENCE 1 (bases 1 to 277)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode Caenorhabditis elegans.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 277)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Direct Submission

JOURNAL Submitted (09-JUN-1998) Nicholas School of the Environment, Duke
University, Box 90328, Durham, NC 27708-0328, USA

FEATURES Location/Qualifiers

source 1..277
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/tissue_type="whole animal"
/dev_stage="mixed population"
/note="from cadmium-responsive gene"
/clone="DDRT23"

misc_RNA 1..277

NID g3265119

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 356)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..356
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="VL9"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 126 a 70 c 55 g 105 t

ORIGIN

1 caatcgatga gtatcctcgta caaattaatg catgtatcaa ttggaaatataatccgaggtag
61 gtaaaacggg gaacatcagc agatagatga atacagcgaa tatcatatag gcacgcagaa
121 tatcaataaa atttcaaat tttcaaaaata tcataacatgataaacacgt agcaggaaat
181 tttaaagcca ctgaaataaa tatagaataaa tatatacaga cacacacaat cttagttca
241 gaacatttc agtaacgacg ttgaactt ttgaagatt tcgcccggcc ttgtatcact
301 ttgcagtc caactccac aactttttt tcctcctt cctctacatc gattgc

//

LOCUS AF071373 199 bp mRNA EST 30-JUN-1998

DEFINITION AF071373 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone VL3A, mRNA sequence.

ACCESSION AF071373

NID g3265118

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 199)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..199
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL3A"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 55 a 31 c 20 g 93 t

ORIGIN

1 taaaacttat gtttatttgt ttttcaaata ttcaaattga aaattgaaac ttcaatttg
 61 attagagctt ttgtggtttg actccctttt ttcatgtaac atctttacg tacgtcatac
 121 ttttgtatac acatttacaa atgttgtttt gtaattataat gtaacaaatt tctatgtaca
 181 cctcatctca tctctctat

//

LOCUS AF071372 326 bp mRNA EST 30-JUN-1998

DEFINITION AF071372 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone VL21A, mRNA sequence.

ACCESSION AF071372

NID g3265117

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 326)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..326
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL21A"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 76 a 61 c 59 g 130 t

ORIGIN

1 cgtctccctt ttttacttac ttgttaggtgc gtcttgtcaa ttgtacgtac ttatatttag
 61 caaacctctg gtgttacac tcgtttttt taaaattttg tacacactt cttttggca
 121 gtaaaagttt ttagcacac ttaaacatc tgccactacc aaggtatag tgagccatc
 181 gaggtttat aatatgcctt gatagttaa agtgtggag gatcgagcta ctttggtagt
 241 gggaaaggccgt gtttcttgc ttgtttgtt cgatgatttta cccaaactatt tgatatttg
 301 atttaccgga ttatataata cacc

//

LOCUS AF071371 147 bp mRNA EST 30-JUN-1998

DEFINITION AF071371 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone VL20B, mRNA sequence.

ACCESSION AF071371

NID g3265116

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.ORGANISM *Caenorhabditis elegans*Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 147)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jof@duke.edu.

FEATURES Location/Qualifiers

source 1..147
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL20B"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 54 a 27 c 22 g 44 t

ORIGIN

1 tggcaatata cctagaaaga gtaaatatta tgacgtggca ataatacaga agcagtccga
 61 actacaactc acgaaacatt ttgaaagttt acctcttgat ttctttgaa tgttttgtct
 121 cacacaataa agaaaattct accgtac

//

LOCUS AF071370 285 bp mRNA EST 30-JUN-1998

DEFINITION AF071370 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone VL19, mRNA sequence.

ACCESSION AF071370

NID g3265115

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 285)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..285
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL19"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 91 a 46 c 52 g 96 t

ORIGIN

1 cgtggcaata cacagaatat acacattgag atggttcgaa tggcaaagag aagggtgg
 61 ctaatcatc tatatagcac aacgc当地 ataaatttcga tggcgccgaa ttgtgtatgg
 121 tgaatgaaat taacaaaatt ttctaaacgt cttcattccg agtaattttt cgttttccct
 181 ccactttcg atttatattt ttctttaga aaaagtattt attgcatcg gtgctcattg
 241 tctttgtta gaatataaac tcgttcactt cccaaaaaaa aaaaa

//

LOCUS AF071369 216 bp mRNA **EST** 30-JUN-1998

DEFINITION AF071369 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone VL13, mRNA sequence.

ACCESSION AF071369

NID g3265114

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 216)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA

Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..216
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL13"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 69 a 37 c 66 g 44 t

ORIGIN

1 tagcaagtgc gagacaaaatg tgaatgcagt ggagacaagt gttgtgagaa gtactgctgt
 61 gaggaggcca gtgagaaaaa atgctgtcca gctggatgtt agggagactg caagtgtgca
 121 aactgtcatt gtgcagagca gaagcagtgc ggagacaaga cccatcaaca ccagggaact
 181 gctgcggctc attaaaatgt ttcagagtgt aatcta

//

LOCUS AF071368 142 bp mRNA EST 30-JUN-1998

DEFINITION AF071368 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone VL11, mRNA sequence.

ACCESSION AF071368

NID g3265113

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 142)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
 Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..142
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL11"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 45 a 21 c 23 g 53 t

ORIGIN

1 gtgcgtggagt tgtttgatt tcagaataaa taaaataaaa tatgatttgatgtt gtagaatatt
 61 aaaataaaatgtt cttcacattt aaattatcaa ttgcgtggcc tcgaatatcttccagctgg
 121 gattgcattc gttcatttc tc

6607772450

//

LOCUS AF071367 84 bp mRNA EST 30-JUN-1998
DEFINITION AF071367 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone VL10, mRNA sequence.
ACCESSION AF071367
NID g3265112
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 84)
AUTHORS Freedman,J.H. and Liao,H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display
JOURNAL Unpublished (1998)
COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..84
/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="VL10"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 29 a 10 c 27 g 18 t

ORIGIN

1 tagcaagtgc ggagacaaat gtgaatgcag tggagacaag ttttgaga agtactgcgt
61 tgaggattcc agtgagaaaa aatc

//

LOCUS AF071366 217 bp mRNA EST 30-JUN-1998
DEFINITION AF071366 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone VL1, mRNA sequence.
ACCESSION AF071366
NID g3265111
KEYWORDS EST.
SOURCE *Caenorhabditis elegans*.
ORGANISM *Caenorhabditis elegans*
Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.
REFERENCE 1 (bases 1 to 217)
AUTHORS Freedman,J.H. and Liao,H.-C.
TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..217
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="VL1"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 69 a 37 c 67 g 44 t

ORIGIN

1 tagcaagtgc ggagacaat gtgaatgcag tggagacaag tttgtgaga agtactgctg
 61 tgaggaggcc agtgagaaaa aatgtgtcc agctggatgt aagggagact gcaagtgtgc
 121 aaactgtcat tgtcagagc agaaggcgtg cggagacaag acccatcaac accaggaaac
 181 tgctgcggct cattaaaatg ttccagagt gaatcta

//

LOCUS AF071365 292 bp mRNA EST 30-JUN-1998

DEFINITION AF071365 mRNA from cadmium-responsive gene *Caenorhabditis elegans*.
 cDNA clone DDRT22, mRNA sequence.

ACCESSION AF071365

NID g3265110

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 292)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..292
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT22"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"

/dev_stage="mixed population"

BASE COUNT 101 a 60 c 50 g 81 t

ORIGIN

1 tggactcca cacggacaaa tacatttagt ttacaagcc gccacgcac acgcaacgcc
 61 gtaaatctac caaggtacaa caacaacatg tcaaggcacag acccatatct tatttgccg
 121 gaacgagatg gcctctactg tagaatcga caattggact ttatccacc ggatcactta
 181 acctatttg atattaat tccattggg atcacaggtt tgcccgaaa atgttaattat
 241 gaactgaatt gaaatgtt ataaatttagt tttattggg aaaaaaaaaa aa

//

LOCUS AF071364 188 bp mRNA EST 30-JUN-1998

DEFINITION AF071364 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT21D, mRNA sequence.

ACCESSION AF071364

NID g3265109

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 188)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
 Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jofn@duke.edu.

FEATURES Location/Qualifiers

source 1..188
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT21D"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 44 a 31 c 51 g 62 t

ORIGIN

1 tataggttaa gtgatccgggt ggataagagt ccaattgtcg attactacag tagaggccat
 61 ctgctccgc acaaataaga tatgggtctg tgcttgacat gttttgttg taccttgggt
 121 agattacgg cagttgcgtg tcgtggcgg ctgtaaaac taaatgttattttccgtgt
 181 gaggatcca

//

LOCUS AF071363 289 bp mRNA EST 30-JUN-1998

DEFINITION AF071363 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT20, mRNA sequence.

ACCESSION AF071363

NID g3265108

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.ORGANISM *Caenorhabditis elegans*Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 289)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by

differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..289

/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT20"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 63 a 56 c 75 g 95 t

ORIGIN

1 tttttttt tttgtacat tatggcaa at ggaggcactg tctggttccg tggggtcatg
61 gtgcatttggaa tcatggata tcctatccctg gcttcta atc ccaatgcgtt tacagtcatg
121 tgggcttggaa cgggccttggc tgagcttggaa caaagtccct tgacagtacg ggtcgacaag
181 cttagacatgc agaaatttggg cacttgggg ctacagggtgc tcgtaattt tttgagatgtt
241 ctgggccttcc ggacttttac taggtaatc taagacaact gggctctaa

//

LOCUS AF071362 214 bp mRNA EST 30-JUN-1998

DEFINITION AF071362 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT2, mRNA sequence.

ACCESSION AF071362

NID g3265107

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.ORGANISM *Caenorhabditis elegans*Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 214)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by

differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment

Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..214
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT2"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 77 a 37 c 40 g 60 t

ORIGIN

1 aaatcatggc ggcggatgca acagtcttct caattggcaa ctgtctatat cattccgcaa
 61 cacatttcgg atgttctcgaa aaggacttc ccaaagttat tggaggactg tgaaagagtt
 121 cgtcatggaaat ttcccaaag gactttacta tgtaattaa attgtcaaac tagtagtcag
 181 atcaataaaa tttacgtgg aaaaaaaaaaaa aaaa

//

LOCUS AF071361 322 bp mRNA EST 30-JUN-1998

DEFINITION AF071361 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT19, mRNA sequence.

ACCESSION AF071361

NID g3265106

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 322)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..322
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT19"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 102 a 77 c 70 g 73 t

ORIGIN

1 tagtgaccg tagagaagcc cagatattta aaatctaaag gaaaaactgtt tgaccagaag

61 attagagccc agttgtctta gatagcctag taaaagtccg gaagcccaga actctcaaaa
 121 taattacag cacctgttagc ccacaagtgc ctaatttcgt actgtcaagc ttgtcgaccc
 181 gtactgtcaa ggaacttgt caagctcagc taggcccgtt caagcccaca tgactgtaaa
 241 cgattcggga tttagaagcca ggataggata tccatgtatcc aatgcaccat gacccacgga
 301 accagatgtg ctcattacat ag

//

LOCUS AF071360 228 bp mRNA EST 30-JUN-1998
 DEFINITION AF071360 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT18, mRNA sequence.

ACCESSION AF071360

NID g3265105

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 228)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
 Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jnf@duke.edu.

FEATURES Location/Qualifiers

source 1..228
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT18"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 70 a 49 c 20 g 89 t

ORIGIN

1 tttttttttt ttccccatt catcacacac tatcatgttt tatattcaga cctattacct
 61 gtccagaaaa actgagctga aaaaatcccg gacgagcagc tccttcacat tcaaaatctt
 121 ccatcatttc cccactcaat tcatttgtt tgtctttgat tttcaaaattt ttgccttat
 181 tattttatgt ctaaattaag aaaactgtta ctttgcaaaa aaaaaaaaaa

//

LOCUS AF071359 255 bp mRNA EST 30-JUN-1998
 DEFINITION AF071359 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT1, mRNA sequence.

ACCESSION AF071359

NID g3265104

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida; Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.

REFERENCE 1 (bases 1 to 255)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..255
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT1"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 113 a 25 c 51 g 66 t

ORIGIN

1 atcattcaag aaagcttatca tcagaaaaca taaatgacat agatcaagtg taaatcacat
 61 atatataaag tggataaata tatatagttt aacggataag gaaattaattt aatgaatttt
 121 gaaactggca gcgaaggatg aacaggaaa ggcacatgtt aaaataatg aatgtgtata
 181 attcgtgaa gagttagttt tgtaggttga tggcagccat gcagaatgag ccattgtcc
 241 gaaaaaaaaaaa aaaaaa

//

LOCUS AF071358 433 bp mRNA EST 30-JUN-1998

DEFINITION AF071358 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT17, mRNA sequence.

ACCESSION AF071358

NID g3265103

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.

REFERENCE 1 (bases 1 to 433)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..433
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT17"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 149 a 63 c 83 g 138 t

ORIGIN

1 tggtaactaag ggccaataaac tgagctttg cacggggca tcaatgataa agagaaaacta
 61 ttttgacgg taaaataaac caaatttaca cggcgagtc aatcaaaaat ttcatctgg
 121 aacagcaaaag tacatcgagg aattgctgga aggaaggcact gatgaaacta attaactgc
 181 tggatgcata ggaaaaacgt caagattgac gtggagttgg agagaaggac tatgtttgga
 241 tggtaactaa gatttgtaa ctggtgacaa taaggacatc acytttctaa ctaacttaaa
 301 ttcttttta ctctttct tctgaattaa ttgtttta aggcgaattc tatgtttcag
 361 aattttttta cgtttgctt ttcatgtta attgtaaaag taagcaattt ttccaccgta
 421 aaaaaaaaaaaa aaa

//

LOCUS AF071357 933 bp mRNA EST 30-JUN-1998

DEFINITION AF071357 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT16FC, mRNA sequence.

ACCESSION AF071357

NID g3265102

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.ORGANISM *Caenorhabditis elegans*Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 933)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..933
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT16FC"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 275 a 190 c 171 g 297 t

ORIGIN

1 catgcacatctt tttttttttt ttttttttta ctgtctcaag tatgtggat tcatgtttga
 61 ttattactgc tgcgcgtttt ggagccgcgtg tcattactt gaaaaatttc ttcaactgttc
 121 ctgcattaa accaaaacct gatattcaca aaaaagacta caaaaggat gtatgtatc
 181 tgtatcagat gaagagactc aagaactgtc cgaacattgtc cccttctgc atgaaaatcg
 241 agattcttg tagaatcttc aagattcctt acgagattat cacatgcacc tctgaacgct
 301 ctccggatgg attggccctt ttcggtgaac tcaatggaga gcacattgtc gattctgatc
 361 ttatcgaaat ggcctgaga tcacattttta aaattccgtc gttccaaact gagctggaaa
 421 ctcaatctgt tgctctaagc aagtttgcg atcaccattt gttctcgta ctatatacgat
 481 ttaaaaattgc tgctcgacaa ttctacaaaaa ccattatcga aataatcggt ctcccaaccc
 541 tcctgaattt ccttctcatg ccccttttga aggctataat cggggaaaaat gctacaaca
 601 aatgtcaggg agccatggg gattttgaat tgagtggatc cgacggattt ctccacagag
 661 atttgcgaat cgttagagaac accttggcca agaaaaaggat tctttcggg gaggaaatca
 721 cggcggcggg tgaacacgtc ttctctcaat tggcaactgt ctattatcca ttccgaatc
 781 acatttcgga tggatcgaa aaggacttcc caaaggat tggatctgt gaaagagttc
 841 gtcatgaagt ttacccaaag gactttacta tgtgaattaa attgtcaaac tagtagtcg
 901 atcaataaaaa ttctacgtgg caaaaaaaaaaa aaa

//

LOCUS AF071356 238 bp mRNA EST 30-JUN-1998
 DEFINITION AF071356 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
 cDNA clone DDRT16, mRNA sequence.

ACCESSION AF071356

NID g3265101

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
 Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 238)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
 Identification and cloning of new cadmium-responsive genes by
 differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
 Nicholas School of the Environment
 Duke University
 Box 90328, Durham, NC 27708-0328, USA
 Email: jnf@duke.edu.

FEATURES Location/Qualifiers

source 1..238
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT16"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 77 a 42 c 45 g 74 t

ORIGIN

1 tttttttttt ttggggagga aatcacggcg gcggatgca cagtcttctc tcaatggca
 61 actgtctatt atccattccg caatcacatt tcggatgttc tcgaaaagga ctcccaaaag
 121 ttatggagt actgtgaaag agtgcgtcat gaaggatttacc caaaggactt tactatgtca

181 attaaattgt caaactagta gtcagatcaa taaaattcta cgtggcaaaa aaaaaaaaaa

//

LOCUS AF071355 248 bp mRNA EST 30-JUN-1998

DEFINITION AF071355 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT15, mRNA sequence.

ACCESSION AF071355

NID g3265100

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 248)

AUTHORS Freedman, J.H. and Liao, H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.

Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..248

/organism="Caenorhabditis elegans"
/strain="N2"
/db_xref="taxon:6239"
/clone="DDRT15"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 67 a 46 c 31 g 104 t

ORIGIN

1 tttttttt ttgcgtatgt tgtaatacta atatttattta attttcttta attttctttg

61 ttaagtttgc attttaggt tggttagatt ttttgccctg taattttgca actgtgattc

121 atgtatgtac tataatgaaacc gaaacccctt cccgtcatac acaacagtta gtaaaacatt

181 ttaatcccat atttctcatt cccaaacactc ttacagggtt tgcatcagca gcagcagtgc

241 aaacacaa

//

LOCUS AF071354 226 bp mRNA EST 30-JUN-1998

DEFINITION AF071354 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT12, mRNA sequence.

ACCESSION AF071354

NID g3265099

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 226)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..226
 /organism="Caenorhabditis elegans"
 /strain="N2"
 /db_xref="taxon:6239"
 /clone="DDRT12"
 /clone_lib="mRNA from cadmium-responsive gene"
 /tissue_type="whole animal"
 /dev_stage="mixed population"

BASE COUNT 68 a 38 c 35 g 85 t

ORIGIN

1 tttttttttt ttttgtaaca aagaactgag cactctatgg tttatcaagt ctatatgtat
 61 ccgtgatgcc tactgtatcg tacatccatc tcgatcgaa tgcattattg atcatgagtt
 121 cccaaaggcc ttaatcttga caaaggcgca atagatatat atccttattt ggcactatat
 181 atatgttcag aattatgact gatcgataca tatgtatcaa gttaca

//

LOCUS AF071353 212 bp mRNA EST 30-JUN-1998

DEFINITION AF071353 mRNA from cadmium-responsive gene *Caenorhabditis elegans*
cDNA clone DDRT10, mRNA sequence.

ACCESSION AF071353

NID g3265098

KEYWORDS EST.

SOURCE *Caenorhabditis elegans*.

ORGANISM *Caenorhabditis elegans*

Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; *Caenorhabditis*.

REFERENCE 1 (bases 1 to 212)

AUTHORS Freedman,J.H. and Liao,H.-C.

TITLE Cadmium-Regulated Genes from the Nematode *Caenorhabditis elegans*.
Identification and cloning of new cadmium-responsive genes by
differential display

JOURNAL Unpublished (1998)

COMMENT

Contact: Jonathan H. Freedman
Nicholas School of the Environment
Duke University
Box 90328, Durham, NC 27708-0328, USA
Email: jonf@duke.edu.

FEATURES Location/Qualifiers

source 1..212
 /organism="Caenorhabditis elegans"
 /strain="N2"

/db_xref="taxon:6239"
/clone="DDRT10"
/clone_lib="mRNA from cadmium-responsive gene"
/tissue_type="whole animal"
/dev_stage="mixed population"

BASE COUNT 68 a 35 c 34 g 75 t

ORIGIN

1 ttgcatacag gaactacatt tacatctgtt tcaacatatac aacaatacat aacatactca
61 atccttcagg ctctgaagga tttgagtg c gatatactgt aacaagctcg ggaaacataa
121 gtacatttt tggagctatc ttttatgtt gcgcctttct tttgtctttt tgaatgagtt
181 ttgaaatgaa ttgtctgtc aaaaaaaaaa aa

//

094450-111099